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ABSTRACT

The general goal of this curriculum laboratory, funded under Title I, E.S.E.A., is to be a place where teachers and others can assume an active, personal role in a process of continuous educational development and change in relation to specific instructional problems with which they are dealing. It offers three types of services: information services, materials preparation services, and circulation of audiovisual media. The purpose of this evaluation is to: (a) examine the existing services offered by the Stevenson Curriculum Laboratory to Title I, E.S.E.A. schools in the Detroit Public School System; and, (b) examine the effectiveness of the laboratory in providing services to the teacher and administrator by providing those media and materials which are either too specialized or too costly to be widely available in individual buildings. To obtain the necessary data for drawing conclusions relative to the evaluation of the Project, two survey instruments were administered: one to 200 teachers, student teachers, and paraprofessionals, and the other to 60 regional administrators, principals, and assistant principals. The emphasis of the evaluation is upon an assessment by the participants of the various aspects of their curriculum laboratory use and training. (Author/JM)

EVALUATION OF THE STEVENSON CURRICULUM LABORATORY

FUNDED UNDER TITLE I

OF THE

LEMENTARY AND SECONDARY EDUCATION ACT

1970-1971

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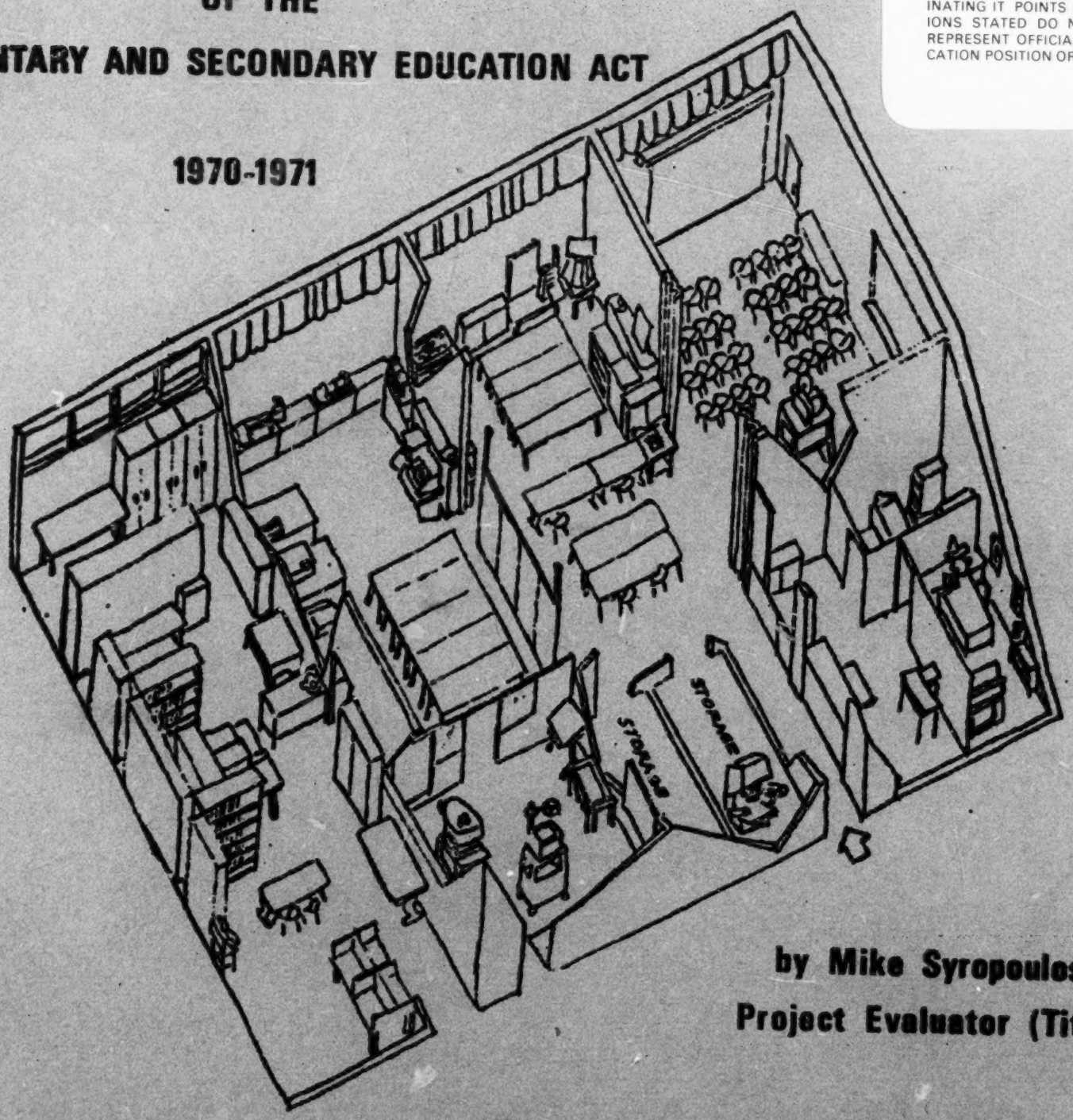

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TABLE OF CONTENTS

	Page
Background of the Project.	1
The Operational Concept of the Curriculum Laboratory . .	1
Specific Objectives.	2
Procedures Used to Measure Attainment of the Objectives.	3
Analysis of the Use of the Stevenson Curriculum Laboratory--Jan., 1966-Aug., 1971.	3
Analysis of the Teachers' Questionnaire.	11
Analysis of the Administrators' Questionnaire.	15
Summary of Findings.	21
Recommendations	25

EVALUATION OF THE STEVENSON CURRICULUM LABORATORY

Background of the Project

In the spring of 1965, the Detroit Public Schools established a curriculum laboratory in the Schools Center Building. Although ideas were gleaned from many sources within and without the school system, the facility which was the greatest single influence on the development of the laboratory was the Toronto Education Centre Library and Audiovisual Department.

During the 1965-66 school year, the form and substance of the Schools Center Laboratory grew with a growing level of use and acceptance. The laboratory approach was seen as valuable enough, in fact, to have two regional facilities included in the proposal for the Tri-Area Integration Project which was successfully funded under Section IV of the State Aid Act in September, 1966.

Because of the regional service character of these two laboratories, an additional function was added to the existing materials production, equipment circulation, and curriculum reference services, that of circulation of audiovisual media (filmstrips, records, transparencies, and other instructional media). Though initially hampered by lack of space and generally limited by the restricted budgets, the regional laboratories were viewed as being a valuable component of the Tri-Area Integration Project.[1]

Because of the legal restrictions implicit in the section of funding, the two regional curriculum laboratories were not able to serve more than three of the school system's more than twenty high school constellations. This restriction was most inconvenient and disturbing to those teachers needing the materials and services of the regional laboratories who, unfortunately, did not teach in the approved area. This situation was most frustrating, particularly in view of the regional laboratories' capacity to serve much wider areas. The acceptance of the laboratories, even under these restricted circumstances, can be seen in the use statistics provided later in this chapter.

During the 1967-68 school year, the service capacity and use of the regional curriculum laboratories continued to increase, despite no improvement beyond the original staff and continuation of the same level of funding. Unfortunately, the Tri-Area Integration Project discontinued. As a result of the discontinuance of the Project, one of the regional laboratories (Stevenson Laboratory) was funded under Title I. Today the Stevenson Laboratory serves all Title I schools in the system.

The Operational Concept of the Curriculum Laboratory

The general goal of the curriculum laboratory, as it is operative in the Detroit Public Schools, is to be a place where teachers and others can assume an active, personal role in a process of continuous educational development and change in

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[1] Project I - Summary of "Priority" Reports from Principals Mackenzie Constellation, Region #3, May, 1968.

relation to specific instructional problems with which they are dealing. More specifically, it offers three types of services

A. Information Services

A collection of curriculum reference materials is available for research use by individuals and groups developing new guides, units, strategies, and otherwise engaged in curriculum development. The laboratory also deals in dissemination of educational information and provide for current awareness of developments, trends, and innovations.

B. Materials Preparation Services

A do-it-yourself instructional materials preparation center is available for teachers to create curriculum materials according to their own style of teaching, the local school curriculum, the nature of their students, and their individual goals. A conscious attempt is made to supplement the facilities of the local school and avoid unnecessary duplication by providing those materials and equipment too specialized or costly for the local school to maintain. The materials preparation center is truly do-it-yourself in that no talent is assumed on the part of the user. The average user should be able to work successfully with the materials and equipment after a brief introduction.

C. Circulation of Audiovisual Media

The curriculum laboratory circulates pre-made audiovisual materials such as; filmstrips, records, multi-media kits, eight millimeter single concept films, etc. These are circulated on a first come, first serve basis only.

Specific Objectives of the Project

As a projection of the rationale underlying the intent and purposes of the project, the specific objectives, against which the progress of the laboratory is to be measured, are that:

1. Teachers will be informed about new developments in materials, equipment, and learning materials.

2. Teachers will be assisted in the use of production equipment and materials.

3. Teachers will be instructed to be able to perform numerous curriculum strategies:

   a. make transparencies
   b. make charts and designs
   c. construct various teaching aids
   d. construct posters
   e. make spirit duplicators
   f. construct bulletin board displays
   g. construct all types of lettering
   h. laminate instructional aids

4. Teachers will be assisted to acquire new techniques and methods to produce more effective learning materials.

5. Teachers will be assisted in designing and creating materials to meet specific instructional needs.

6. Teachers will be assisted in resolving special instructional problems.

7. Teachers will be informed about pertinent professional studies and articles relative to the improvement of instruction.

Procedures Used to Measure Attainment of Objectives

The purpose of this evaluation is, to: (a) examine the existing services offered by the Stevenson Curriculum Laboratory to Title I schools in the Detroit Public School System; and (b) examine the effectiveness of the laboratory in providing services to the teachers, administrators, and other instruction related personnel by providing those media and materials which are either too specialized or too costly to be widely available in individual buildings.

To obtain the necessary data for drawing conclusions relative to the evaluation of the Project, two survey instruments were administered to 260 educators and paraprofessionals. One instrument was sent to 200 teachers, student teachers, and paraprofessionals. The other instrument was sent to 60 regional administrators, principals, and assistant principals.

The data obtained from the survey instruments were transferred to punched cards. A program for cross-tabulation analysis was written then for the computer. The information received through printouts was then transferred to appropriate tables for easier analysis. The percentages were based on the number who responded to the question. All percentage figures were rounded to the nearest whole number before being placed in the tables.

The response in the administrators' questionnaire was considered significant if 55 percent of the respondents indicated that the item was essential.

The open-ended questions were subjected to content analysis and subsequently tabulated according to categorical groupings which emerged.

Finally, the emphasis of the evaluation of the Project would be upon an assessment by the participants of the various aspects of their curriculum laboratory use and training.

Analysis and Findings

Based on the rationale underlying the evaluation of the Project as indicated above and the procedures used to measure the attainment of its objectives, the following analysis was formulated:

Analysis of the Use of the Stevenson Curriculum Laboratory--Jan., 1966-Aug., 1971

As indicated in Tables 1-5, the use of the laboratory has increased over the last

four years from 1,767 incidents of use during the second half of 1966-67 school year, to 10,701 such incidents during the 1970-71 school year. An incident of use is defined as a complete materials production project, or a circulation of a single piece of equipment or item of print or audiovisual media.

Considered individually, the data in Tables 1-5 present a more detailed picture, on a yearly basis, of general use. The categories of workshop involvement; materials and equipment users; materials production, and circulation of materials and equipment; total individual use; and schools served are presented.

Table 6 summarizes the most significant data from Tables 1-5. As shown in Table 6 during the last four years, the Stevenson Curriculum Laboratory held 463 workshops or meetings and served 7,443 participants[1] (Table 6). The two years with the highest number of participants were 1969-70 and 1970-71 school years. In both of these years the laboratory served 2,000 workshop participants yearly (Tables 4 and 5). These workshops consisted of teachers, administrators, paraprofessionals, student teachers, and university classes.

In Tables 1-5, the reader will find a yearly statistical summary showing how the educators, clerks, and paraprofessionals used the laboratory. The category of greatest use has been materials production. As shown in the summary of Table 6, 24,492 persons used the laboratory for materials production, whereas 5,625 for media circulation, and 584 for materials circulation.

Since January, 1967, the Stevenson Curriculum Laboratory has had 31,396 incidents of use (Table 6). The constant upward trend of the laboratory use is quite pronounced. A constant upward trend is shown (Table 6) from 1,767 incidents of use in 1967, 3,266 incidents in 1967-68, 6,129 incidents in 1968-69, 9,539 incidents in 1969-70, and 10,701 incidents in 1970-71.

In Tables 1-5, the reader will find the average numbers of schools served. Regardless of the number of people from one school who used the laboratory, the school was counted only once during any given month. The highest school year was 1970-71, when the laboratory served an average of 118 schools per month.

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[1] No data was available for September through December, 1966.

Table 1

USE OF THE STEVENSON CURRICULUM LABORATORY
STATISTICAL SUMMARY

January - July, 1967*

TYPE OF USE	SUB-TOTAL	TOTAL
1. WORKSHOPS OR MEETINGS SERVED		
AT LABORATORY	38	
AT OTHER LOCATIONS	24	
TOTAL NUMBER OF WORKSHOPS		62
TOTAL WORKSHOP PARTICIPANTS		673
2. MATERIALS PRODUCTION PROJECTS		1512
AVERAGE COST PER PROJECT	$1.68	
3. CIRCULATION OF MATERIALS (IN UNITS)		
MEDIA CIRCULATION	181	
PROFESSIONAL LITERATURE CIRCULATION	40	
TOTAL CIRCULATION		221
4. CIRCULATION OF EQUIPMENT (IN UNITS)		34

USER CHARACTERISTICS

1. JOB CATEGORIES

	MATERIALS PRODUCTION	MATERIALS CIRCULATION	CIRCULATION OF EQUIPMENT
TEACHER	598	221	34
STUDENT TEACHER	27		
TEACHER AIDE	340		
DEPT. HEAD OR COUNSELOR	20		
LOCAL SCHOOL ADMIN.	36		
OTHER ADMINISTRATOR	103		
OTHER	102		
CLERICAL	286		
	1512	221	34
TOTAL INCIDENTS OF USE			1767

2. SCHOOLS SERVED (MONTHLY AVERAGE)

HIGH SCHOOLS	2	
JUNIOR HIGH SCHOOLS	4	
ELEMENTARY	20	
SPECIAL OR OTHER	5	
TOTAL SCHOOLS SERVED		31

*The laboratory was closed during the month of August, 1967.

Table 2

USE OF THE STEVENSON CURRICULUM LABORATORY
STATISTICAL SUMMARY

1967 - 1968

TYPE OF USE	SUB-TOTAL	TOTAL
1. WORKSHOPS OR MEETINGS SERVED.		
AT LABORATORY	38	
AT OTHER LOCATIONS	14	
TOTAL NUMBER OF WORKSHOPS		52
TOTAL WORKSHOP PARTICIPANTS		1155
2. MATERIALS PRODUCTION PROJECTS		2720
AVERAGE COST PER PROJECT	$1.10	
3. CIRCULATION OF MATERIALS (IN UNITS)		
MEDIA CIRCULATION	446	
PROFESSIONAL LITERATURE CIRCULATION	44	
TOTAL CIRCULATION		490
4. CIRCULATION OF EQUIPMENT (IN UNITS)		56

USER CHARACTERISTICS

1. JOB CATEGORIES

	MATERIALS PRODUCTION	MATERIALS CIRCULATION	CIRCULATION OF EQUIPMENT
TEACHER	1247	490	56
STUDENT TEACHER	63		
TEACHER AIDE	547		
DEPT. HEAD OR COUNSELOR	50		
LOCAL SCHOOL ADMIN.	32		
OTHER ADMINISTRATOR	89		
OTHER	203		
CLERICAL	489		
	2720	490	56

TOTAL INCIDENTS OF USE 3266

2. SCHOOLS SERVED (MONTHLY AVERAGE)

HIGH SCHOOLS	5	
JUNIOR HIGH SCHOOLS	10	
ELEMENTARY	34	
SPECIAL OR OTHER	3	
TOTAL SCHOOLS SERVED		52

Table 3

USE OF THE STEVENSON CURRICULUM LABORATORY
STATISTICAL SUMMARY

1968 - 1969

TYPE OF USE	SUB-TOTAL	TOTAL
1. WORKSHOPS OR MEETINGS SERVED		
AT LABORATORY	98	
AT OTHER LOCATIONS	18	
TOTAL NUMBER OF WORKSHOPS		116
TOTAL WORKSHOP PARTICIPANTS		1677
2. MATERIALS PRODUCTION PROJECTS		4707
AVERAGE COST PER PROJECT	$1.41	
3. CIRCULATION OF MATERIALS (IN UNITS)		
MEDIA CIRCULATION	1006	
PROFESSIONAL LITERATURE CIRCULATION	188	
TOTAL CIRCULATION		1194
4. CIRCULATION OF EQUIPMENT (IN UNITS)		228

USER CHARACTERISTICS

1. JOB CATEGORIES

	MATERIALS PRODUCTION	MATERIALS CIRCULATION	CIRCULATION OF EQUIPMENT
TEACHER	2724	1194	228
STUDENT TEACHER	371		
TEACHER AIDE	157		
DEPT. HEAD OR COUNSELOR	92		
LOCAL SCHOOL ADMIN.	176		
OTHER ADMINISTRATOR	145		
OTHER	126		
CLERICAL	916		
	4707	1194	228
TOTAL INCIDENTS OF USE			6129

2. SCHOOLS SERVED (MONTHLY AVERAGE)

HIGH SCHOOLS	7	
JUNIOR HIGH SCHOOLS	11	
ELEMENTARY	38	
SPECIAL OR OTHER	12	
TOTAL SCHOOLS SERVED		68

Table 4

USE OF THE STEVENSON CURRICULUM LABORATORY
STATISTICAL SUMMARY

1969 - 1970

TYPE OF USE	SUB-TOTAL	TOTAL
1. WORKSHOPS OR MEETINGS SERVED		
AT LABORATORY	114	
AT OTHER LOCATIONS	11	
TOTAL NUMBER OF WORKSHOPS		125
TOTAL WORKSHOP PARTICIPANTS		2001
2. MATERIALS PRODUCTION PROJECTS		6642
AVERAGE COST PER PROJECT	$1.73	
3. CIRCULATION OF MATERIALS (IN UNITS)		
MEDIA CIRCULATION	2514*	
PROFESSIONAL LITERATURE CIRCULATION	208*	
TOTAL CIRCULATION		2722*
4. CIRCULATION OF EQUIPMENT (IN UNITS)		175

USER CHARACTERISTICS

1. JOB CATEGORIES

	MATERIALS PRODUCTION	MATERIALS CIRCULATION	CIRCULATION OF EQUIPMENT
TEACHER	3627	2722	175
STUDENT TEACHER	464		
TEACHER AIDE	376		
DEPT. HEAD OR COUNSELOR	94		
LOCAL SCHOOL ADMIN.	171		
OTHER ADMINISTRATOR	181		
OTHER	356		
CLERICAL	1373		
	6642	2722	175

TOTAL INCIDENTS OF USE 9539

2. SCHOOLS SERVED (MONTHLY AVERAGE)

HIGH SCHOOLS	7	
JUNIOR HIGH SCHOOLS	13	
ELEMENTARY	73	
SPECIAL OR OTHER	7	
TOTAL SCHOOLS SERVED		100

*Circulation of materials did not take place during the months of July and August of 1970.

Table 5

USE OF THE STEVENSON CURRICULUM LABORATORY
STATISTICAL SUMMARY

1970 - 1971

TYPE OF USE	SUB-TOTAL	TOTAL
1. WORKSHOPS OR MEETINGS SERVED		
AT LABORATORY	99	
AT OTHER LOCATIONS	9	
TOTAL NUMBER OF WORKSHOPS		108
TOTAL WORKSHOP PARTICIPANTS		1937
2. MATERIALS PRODUCTION PROJECTS		8911
AVERAGE COST PER PROJECT	$1.62	
3. CIRCULATION OF MATERIALS (IN UNITS)		
MEDIA CIRCULATION	1478*	
PROFESSIONAL LITERATURE CIRCULATION	104*	
TOTAL CIRCULATION		1582*
4. CIRCULATION OF EQUIPMENT (IN UNITS)		208

USER CHARACTERISTICS

1. JOB CATEGORIES

	MATERIALS PRODUCTION	MATERIALS CIRCULATION	CIRCULATION OF EQUIPMENT
TEACHER	5365	1582	208
STUDENT TEACHER	314		
TEACHER AIDE	819		
DEPT. HEAD OR COUNSELOR	114		
LOCAL SCHOOL ADMIN.	66		
OTHER ADMINISTRATOR	189		
OTHER	338		
CLERICAL	1706		
	8911	1582	208

TOTAL INCIDENTS OF USE 10,701

2. SCHOOLS SERVED (MONTHLY AVERAGE)

HIGH SCHOOLS	9	
JUNIOR HIGH SCHOOLS	13	
ELEMENTARY	86	
SPECIAL OR OTHER	10	
TOTAL SCHOOLS SERVED		118

*Circulation of materials did not take place from September, 1970 through January, 1971 due to staff reductions.

Table 6

GROWTH OF THE ACTIVITIES AND SERVICES OF THE CURRICULUM LABORATORY

January 1967 - August 1971

Activities and Services	1967 Jan. - July	1967-68 Sept. - Aug.	1968-69 Sept. - Aug.	1969-70 Sept. - Aug.	1970-71 Sept. - Aug.	Totals
1. Total Number of Workshops	62	52	116	125	108	463
2. Total Workshop Participants	673	1,155	1,677	2,001	1,937	7,443
3. Materials Production Projects	1,512	2,720	4,707	6,642	8,911	24,492
4. Average Cost Per Project	$1.68	$1.10	$1.41	$1.73	$1.62	$1.50
5. Media Circulation	181	446	1,006	2,514**	1,478*	5,625
6. Professional Literature Circulation	40	44	188	208**	104*	584
7. Equipment Circulation	34	56	228	175	208	701
8. Total Incidents of Use	1,767	3,266	6,129	9,539	10,701	31,402
9. Schools Served (Monthly Average)	31	52	68	100	118	74

*Circulation of materials did not take place from September 1970 through January 1971 due to staff reduction.

**Circulation of materials did not take place during the months of July and August of 1970.

Analysis of the Teachers' Questionnaire[1]

The Teachers' Survey Questionnaire was sent to 200 teachers, student teachers, paraprofessionals and others. The total number who completed and returned the questionnaire was 144. This represents 72 percent of the population.

A number of questions on this instrument requested general background information of the respondent. The rest of the questions were designed to seek the opinion of the respondent regarding the effectiveness of the curriculum laboratory.

The data show that 104 (75 percent) were females and 34 (25 percent) were males of those who participated in the evaluation. From these percentages given it is evident that the female users of the laboratories outnumbered the males by a three-to-one margin. The largest number of the respondents, 95 (69 percent), served elementary schools, 18 (13 percent) junior high schools, 12 (9 percent) senior high schools, and 13 (9 percent) special schools.

The greatest number of the users are teachers, 92 (76 percent), followed by paraprofessionals 15 (13 percent), and other 13 (11 percent) (includes counselors, department heades, and clerks).

It is evident from the data that the greatest number of users were beginning teachers under three years of teaching, 52 (36 percent), followed those with three to seven years experience, 31 (22 percent).

The majority of the users, 124 (86 percent) are residents of Detroit. The data also reveals that the majority of the users, 76 (53 percent) live in the high school constellations close to the Stevenson Laboratory. The largest number live in Mumford constellation, but Northwestern has the largest number of teaching locations, with Mackenzie constellation close second.

The three main sources of information about the laboratory were as follows:

1. Workshops 30 (21 percent)
2. Another teacher 25 (17 percent)
3. University classes 22 (15 percent)

The data show that 40 (28 percent) were first year users, 41 (29 percent) second year users, and 28 (20 percent) were third year users. It is worth mentioning that 18 (13 percent) who responded to the survey have been using the laboratory since its inception five years ago.

The data indicate that the most users of the laboratory are the ones who either live or work closest to the Stevenson Curriculum Laboratory. Eighty (63 percent) of the users work five miles or less from the laboratory. Sixty-three (50 percent) of the users live five miles or less, and 34 (27 percent) live nine miles or less.

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[1]The documents, tables, and other data supporting the findings of this evaluation are on file and available for examination in the office of the evaluator.

The users were asked whether their visits to the laboratory contributed to the development of any instructional materials. Ninety-six percent or 130 of the respondents indicated that their visits contributed to some type of design or development for instructional purposes. The following are just a few of their comments or examples:

> "Visual aids for motivation in reading and arithmetic."
>
> "Games to play to practice skills, worksheets for testing and evaluation."
>
> "Constructional materials such as; word wheels, drill cards, weather calendar, word games, math games, bulletin boards, etc."

In the following question, the users were asked if their visits to the laboratory contributed to their professional growth, 91 percent or 125 of the respondents indicated that the curriculum laboratory has contributed to their professional growth. The following are just a few of their comments:

> "Anytime I learn how to use machines or materials that aid my teaching and aid in the efficiency of teaching preparation, I am growing professionally. Also, talking with other teachers and exchanging ideas always contribute to my professional growth."
>
> "It helped me to better my approach towards the presentation of an idea."

The respondents were asked if they received any assistance from the laboratory personnel in developing their materials. Ninety-one percent of the respondents answered "Yes." Some of their comments are indicated as follows:

> "The personnel has been most cooperative. In fact, without their patience and instruction, much of my time would have been wasted."
>
> "Personnel at the lab have assisted me in the operation of various machines. Offered excellent advice on the best procedure to use in attaining my desired goals."

To the question, if they received any assistance from the laboratory personnel in innovating teaching methods, 23 percent stated that they didn't want or needed any assistance from the laboratory personnel. Thirty-seven percent indicated that they received assistance and 40 percent indicated that they did not. It should be pointed out that this doesn't mean that the staff wasn't willing to assist, as some of the respondents stated in their comments that they didn't know that this was provided or that they didn't request help in this area. The following are some of the comments of the respondents who received assistance:

> "Personnel gave suggestions and ideas that made my work easier, and which made implementation of my idea less complicated."

> "How and why to use visual aids, and which materials were best suited to my needs."

In another question, the users were asked if they have improved their teaching methods by using the curriculum laboratory. Ninety-one percent or 119 respondents indicated that the use of the laboratory has improved their methods. Some of the following comments indicate this:

> "I am a demonstration teacher. Without the use of the curriculum laboratory, it would have been impossible to do my job."

> "In the laboratory you can gain ideas from many resources and this way makes the lesson different, meaningful, interesting, and motivating. Ideas are varied, ways and materials have no chance to become stagnated."

In an open-ended question, the users were asked what were the most significant new insights or ideas they have gained as a result of visiting and using the curriculum laboratory. Their answers were tabulated according to categorical groupings, and they are listed below:

1. How to produce relevant and practical materials
2. Ideas for visual aids and teaching techniques
3. New approaches to teach more effectively
4. Creation and production of materials for individualized instruction
5. Materials for implementing resource and teaching units
6. Ideas for bulletin boards
7. How to use and operate various types of equipment
8. How to be more creative in my teaching

For purposes of data analysis, the rating categories were dichotomized so that 3, 4, and 5 represented poor ratings, whereas 1 and 2 depicted excellent ratings. The data indicate a high degree of satisfaction by the respondents with the curriculum laboratory. The majority of the respondents rated the laboratory excellent. The results of the positive ratings are as follows:

Availability of equipment	98 (73 percent)
Availability of materials	118 (87 percent)
Quality of materials	128 (93 percent)
Professional assistance	105 (79 percent)
Technical assistance	108 (81 percent)

The users of the laboratory were asked if it was essential to provide additional personnel for the laboratory. The data show that 49 (41 percent) of the respondents indicated trained technical, 48 (40 percent) suggested professionals, followed by paraprofessionals, 12 percent and student aides, seven percent.

The specialized person the respondents would like to have in the laboratory is the curriculum specialist, followed by the materials production, and materials design specialists.

In terms of schedule the data indicates that the greatest number of respondents (87) would like to use the laboratory between 4 and 6 p.m. The next choice was 6-9 with 40 respondents. The third choice was 2-4 p.m. with 30 respondents. According to the data the laboratory should be open from 2-9 p.m. in order to serve the respondents. Eighty-three percent or 111 respondents indicated that they would use the laboratory if it were open on Saturday.

The reference materials are used only at location for reference purposes and do not circulate. The only materials which circulate are the professional books. The most frequently utilized reference materials in the order of use are:

1. Transparency masters
2. Bulletin board idea booklets
3. Subject area guides
4. Professional reference books
5. Periodicals

According to the data, the equipment items used most by the respondents in the order of use are:

1. Laminating press
2. Signmaking (Embosograph)
3. 3M Dry Photo Copier
4. 3M Thermofax Secretary
5. Gestefax (Stencil-maker)
6. Tapewriting machine
7. Varityper Headliner
8. Waxer
9. Diazo Printer (Color overlays)
10. Tape recorder
11. Repronar (Slide reproducer)

The most used graphic materials in the order of use are:

1. Railroad paper
2. Construction paper
3. Dri mark (Pens)
4. Bulletin board paper
5. Felt
6. Chart pad
7. Chalk and crayons
8. Sprays
9. Paints

The most used items of the projection equipment are the overhead and opaque projectors. These two pieces of equipment are utilized constantly by the users of the laboratories for enlarging small pictures or cartoons to the desired size for their bulletin boards.

The users were asked to recommend specific changes for the laboratory. The following is a summary of the most common suggestions:

1. An Xerox Photocopier is urgently needed
2. More laminating presses are needed to save time

3. More pieces of production equipment are needed in the laboratory
4. Evening and Saturday hours should be instituted
5. More professional technical personnel should be available
6. More filmstrips, records, loops are needed
7. No limits should be placed on materials
8. In-service training for teachers in the proper use of the laboratory should be provided

Finally, according to the data, 64 percent of the teachers indicated that they would like to have five laboratories on a geographical basis (not administrative) throughout the city. Ninety-six percent or 133 of the respondents indicated that these laboratories should be available to any educator regardless of what region he works or resides.

Analysis of the Administrators' Questionnaire

The Administrators' Survey Questionnaire was sent to 60 school and central administrators. The total of 46 usable questionnaires were returned. This represents 77 percent of the population.

A number of questions in this instrument requested general information of the respondent. The rest of the questions were designed to seek opinions of the respondents regarding the curriculum laboratory.

The evaluator suggested items in the questionnaire which do not pertain to present functions, services and organizational structure of the laboratory. The intend was to determine what the respondents saw as the most fruitful direction in laboratory growth and what changes should be implemented. The response was considered significant if 55 percent of the respondents indicated that the item was essential.

The data indicate that 36 (80 percent) of the respondents were men. It also indicates that 22 (48 percent) of the respondents represented elementary and secondary schools. The other 24 (52 percent) were central administrators. The local school administrative categories were represented as follows:

1. Principals 12 (26 percent)
2. Assistant Principals 7 (15 percent)
3. Staff Coordinators 2 (4 percent)
4. Curriculum Leaders 1 (2 percent)

The central administrators include the following:

1. Regional Administrators 3 (7 percent)
2. Directors 5 (11 percent)
3. Supervisors 4 (9 percent)
4. Research Assistants 12 (26 percent)

The data show that 33 (72 percent) of the respondents have been in their position four years or less and that they have visited the curriculum laboratory an average of ten times during the 1970-71 school year. The data also reveal that 27 (59 percent) have been using the laboratory for the last five years and 13 (28 percent) for the last four years.

To the question, "Are you familiar with the general nature (function and organization) of the curriculum laboratories?" One hundred percent of the administrators indicated "Yes." The following are typical of their comments:

> "We have used the facility for in-service education, production of materials, and reference work."
>
> "My staff and demonstration teachers use this facility frequently."

To the question, "Are you aware of any instructional materials made in the curriculum laboratory being utilized by your staff?" Forty-three (98 percent) of the respondents answered "Yes." Some of their comments are indicated as follows:

> "We had two workshops dealing with construction of instructional materials."
>
> "Many members of my staff are using the laboratory to make transparencies, laminating pictures and games, construct bulletin boards and make special signs."

The respondents were also asked, "Do you feel that the services of the curriculum laboratory promote more effective classroom instruction?" According to the opinions, as indicated in the data, there is a unanimity of 100 percent "Yes." Some of their comments are:

> "Teachers are developing materials not commercially available to meet specific needs of their students."
>
> "Materials made at the curriculum laboratory provide the children with more practical aids that could be used over and over again."

In answer to the question, "Have you suggested that teachers or others under your supervision utilize the curriculum laboratory?", the data indicate that 100 percent of the users responded "Yes." A few of their comments are:

> "Have encouraged teachers and paraprofessionals to use the laboratory as a learning tool for classroom instruction."
>
> "I encouraged all the new teachers to avail themselves of the facility. I also demonstrate the materials at in-service training workshops."

To the question, "Have you ever held a workshop for teachers at the curriculum laboratory?", 52 percent answered "Yes." The following are some of their comments:

> "I conducted workshops for all new teachers."
>
> "I involved most of my staff in one workshop using the curriculum laboratory."

In terms of the last question, "Do you feel that these teachers on your staff, who have used the curriculum laboratory, are more effective for that use?", the data reveal that 36 (97 percent) of the respondents answered "Yes." Some of their comments:

> "Can produce materials which are not commercially available to fit the needs of their students."
>
> "Visual materials could be used to build concepts and reinforce skills."

Purposes

A number of purposes were suggested to be established and maintained by the curriculum laboratory. There was only one of the purposes which was considered essential.

> "Exchanging and obtaining curriculum reference materials for deposit." (56 percent)

The following purposes were considered desirable:

1. Prepare cross indexes for curriculum reference materials
2. Locating requested curriculum reference materials as needed
3. Maintaining a personnel bank for consultation
4. Participating in curriculum research and studies
5. Planning joint programs
6. Conducting mutual workshops or in-service seminars

It should be noted that the above purposes have over 92 percent combined of essential and desirable responses.

Functions

According to the data the following functions are considered essential:

1. Evaluating, procuring and housing curriculum and research materials (80 percent)

2. Producing various types of curriculum reference materials (75 percent)

3. Maintaining facilities to aid others in conducting their own curriculum study and revision (58 percent)

The following functions should be considered desirable. The percentage is a combination of essential and desirable responses:

1. Developing methods and techniques of instruction for various types of learning (91 percent)

2. Assisting in curriculum study and revision through field and consultive services (89 percent)

3. Assisting in curriculum study and revision through action research (82 percent)

4. Studying the resources, needs and values of the community (68 percent)

Services

According to the data the administrators did not consider the suggested services as essential. However, a combination of desirable and essential responses of 90 percent is as follows:

1. Assisting users in the use of print and non-print materials (100 percent)

2. Assisting users in the selection of curriculum reference and student use instructional materials (print and non-print) (96 percent)

3. Exhibiting teacher-made materials and other instructional materials prepared by teachers and students (94 percent)

4. Assisting users in locating and obtaining curriculum reference and instructional materials not available in the laboratory (92 percent)

5. Assisting other departments in preparing exhibits to be displayed in the curriculum laboratories (91 percent)

Clients

According to the data the administrators considered the following client groups as essential:

1. Teachers (100 percent)
2. Administrators (91 percent)
3. Paraprofessionals (74 percent)
4. Student Teachers (63 percent)

Substitute teachers and parent community and community groups were not considered significant in terms of being essential and desirable.

References

According to the data the administrators considered the following references as essential:

1. How-to-do-it materials (planning assembly programs, social activities, constructing teaching aids) (80 percent)

2. Guides to free and inexpensive materials (74 percent)

3. Programmed instructional materials (72 percent)

4. Courses of study (71 percent)

5. Curriculum Bulletins (70 percent)

6. Flat pictures, slides, filmstrips, records (65 percent)

7. Sample teaching units (64 percent)

8. Idea booklets (pupil activities, bulletin boards, construction projects (64 percent)

9. Teachers' manuals and guides (63 percent)

10. Sample resource units (61 percent)

11. Audiovisual catalogs (60 percent)

12. Educational games and toys (59 percent)

13. Three dimensional materials (models, dioramas) (57 percent)

The remaining references should be considered at least desirable because a combined of essential and desirable responses exceeds the 70 percent.

Equipment

According to the responses the following equipments are considered essential:

1. Embosograph (98 percent)
2. 3M Dry Photo Copier (96 percent)
3. Typewriting Machines (95 percent)
4. Gestefax (95 percent)
5. Laminating Press (93 percent)
6. 3M Thermofax Secretary (93 percent)
7. Varityper Headliners (90 percent)
8. Xerox Photocopier (87 percent)
9. Diazo Printers (86 percent)
10. Tape Duplicator (84 percent)
11. Mimeograph Machine (84 percent)
12. Waxer (83 percent)
13. Opaque Projectors (82 percent)
14. Comb Binders (82 percent)
15. Ditto Machine (82 percent)
16. Repronar (81 percent)
17. Overhead Projectors (80 percent)
18. Tape Recorders (79 percent)
19. Multiple Dry Copier (75 percent)
20. Film Projectors (72 percent)
21. Collator (72 percent)
22. Photo Modifier (70 percent)
23. Graphic Table with Equipment (64 percent)
24. Controlled Readers (64 percent)
25. Super 8 Projectors (63 percent)
26. Photo Copier (Wet Process) (63 percent)
27. Tachistoscope (62 percent)
28. Tape Recorders (Specialized) (56 percent)

The two pieces of equipment which were not considered essential were the Offset Press and 35MM Camera, however, they received over 85 percent combined of essential

and desirable responses.

Personnel

According to the data the administrators considered the following personnel as essential.

1. A supervisor or administrator who is directly responsible for the curriculum laboratory (97 percent)

2. At least one full time secretary (97 percent)

According to the data not one of the suggested consultants was considered undesirable, but a combination of essential and desirable responses could be considered significant. They are as follows:

1. Curriculum (91 percent)
2. Graphics (91 percent)
3. Reference (91 percent)
4. Materials Production (91 percent)
5. Materials Design (88 percent)
6. Photography (84 percent)

The student assistants and paraprofessionals were considered as desirable by the respondents.

Physical Facilities

The administrators indicated, by their responses, the following facilities as essential for an effective operation of the laboratory:

1. Workspace for use by staff and teachers engaged in acutal construction materials (93 percent)

2. Large area for housing of the materials production equipment (87 percent)

3. Workroom with facilities for typing, mimeographing, and other types of duplicating (85 percent)

4. Conference room (Approximately 12 people) (58 percent)

5. Reading/browsing area (58 percent)

Hours of Operation

The administrators indicated that they considered it essential that the laboratory should be open from 8:00 a.m. to 9:00 p.m. and be open also on Saturday. The breakdown is as follows:

1. Morning hours - 8:00-12 Noon (63 percent)
2. Afternoon hours - 1-5 p.m. (89 percent)
3. Evening hours - 6-9 p.m. (61 percent)
4. Saturday (62 percent)

Location and Availability

According to the data the administrators indicated, with 61 percent responses as essential, that there should be one laboratory in every administrative region. Eighty-eight percent of the respondents indicated that presently, we don't have enough laboratories.

The administrators also indicated as essential, with 68 responses, that the laboratory should be open to any teacher in the system regardless of the region in which the teacher teaches or resides.

Finally, the administrators were asked to recommend specific changes for the curriculum laboratory. The following is a summary of their responses:

1. Xerox machine is urgently needed
2. More equipment are needed to be loaned to the schools
3. More laboratories are needed to serve all teachers and administrators
4. Open on Saturdays
5. More personnel are needed

Conclusions and Recommendations

To restate, the purpose of this evaluation is, to: (a) examine the existing services offered by the Stevenson Curriculum Laboratory to Title I schools in the Detroit Public School System; and (b) examine the effectiveness of the laboratory in providing services to the teacher and administrator by providing those media and materials which are either too specialized or too costly to be widely available in individual buildings.

Summary of Findings

The information that follows are the findings of this report, based on evaluation data as related to the achievement of the objectives of the project.

Use of the Laboratory Findings

1. The Stevenson Curriculum Laboratory held 463 workshops or meetings and served 7,443 participants (Table 6) since its conception.
2. The following data indicate how the educators, clerks and paraprofessionals have used the laboratory since its opening:
   a. The laboratory was used by 24,492 persons for materials production (Page 4).

b. The laboratory was used by 5,625 persons for media circulation (Page 4).

c. The laboratory was used by 584 persons for materials circulation (Page 4).

Since January, 1967, the Stevenson Curriculum Laboratory has served 31,402 persons (Table 6). The constant upward trend of the laboratory use is quite apparent. Such a trend is shown (Table 6) from 1,767 incidents in 1967, to 10,701 incidents in 1970-71.

Teachers' Data Findings

1. The data show that 104 (75 percent) of the respondents were female.

2. The largest number of respondents 95 (69 percent) served elementary schools, 18 (13 percent) junior high schools, 12 (9 percent) senior high schools, and 13 (9 percent) special schools (Page 11).

3. The greatest number of users is teachers 92 (76 percent), followed by paraprofessionals and other (Page 11).

4. The greatest number of users were beginning teachers under three years of teaching 52 (36 percent), followed by teachers with three to seven years experience (Page 11).

5. The data reveal that the majority of the users 76 (53 percent) live in the high school constellations close to the Stevenson Laboratory. The largest number live in the Mumford area, but Northwestern has the largest number who teach in the constellation area (Page 11).

6. Ninety-six percent or 130 of the respondents indicated that their visits to the laboratory contributed to some type of design or development for instructional purposes (Page 12).

7. Ninety-one percent or 125 of the respondents indicated that the laboratory has contributed to their professional growth (Page 12).

8. Ninety-one percent or 125 of the respondents indicated that they received assistance from the laboratory personnel in developing their materials (Page 12).

9. The data indicate that in receiving any assistance from the laboratory personnel in innovating teaching methods, the users responded as follows:

   a. Thirty-seven percent indicated "Yes."

   b. Forty percent indicated "No."

   c. Twenty-three percent indicated that they didn't want or needed any assistance (Page 13).

10. Ninety-one percent or 119 respondents indicated that the use of the laboratory has improved their methods (Page 14).

11. The data reveal that the respondents have gained new insights or ideas as a result of visiting and using the curriculum laboratory.

12. The majority of the respondents rated the laboratory excellent (Page 15).

13. The data indicate that the laboratory should be open from 2-9 p.m. in order to serve the respondents. Eighty-three percent or 111 respondents indicated that they would use the laboratory if it were open on Saturday (Page 15).

14. The most used reference materials, equipment, and graphic materials in the order of use, are listed on pages 17 and 18.

Administrators' Data Findings

1. The data indicate that 36 (80 percent) of the respondents were men. It also indicates that 22 (48 percent) of the respondents represented elementary and secondary schools. The other 24 (52 percent) were central administrators.

2. The data show that 33 (72 percent) of the respondents have been four years or less in their present position. However, 29 (59 percent) have been using the laboratory for the last five years.

3. One hundred percent of the respondents indicated they are familiar with the general nature (function and organization) of the curriculum laboratory.

4. The data indicate that 43 (98 percent) of the respondents were aware of instructional materials made in the curriculum laboratory being utilized by their staff.

5. One hundred percent of the respondents felt that the services of the curriculum laboratory promote more effective classroom instruction.

6. One hundred percent of the administrators have suggested to the staff, under their supervision, to utilize the curriculum laboratory.

7. Fifty-two percent of the respondents have held workshops for their teachers at the curriculum laboratory.

8. Ninety-seven percent of the respondents indicated that their teachers who have used the curriculum laboratory are more effective for that use.

Purposes

There was only one purpose which was considered essential:

"Exchanging and obtaining curriculum reference materials for deposits" (56 percent)

Functions

According to the data, the following functions are considered essential:

1. Evaluating, procuring and housing curriculum and research materials (80 percent)
2. Producing various types of curriculum reference materials (75 percent)
3. Maintaining facilities to aid others in conducting their own curriculum study and revision (58 percent)

Services

According to the data, the administrators did not consider any of the suggested services as essential.

Clients

According to the data, the administrators considered the following clients as essential:

1. Teachers (100 percent)
2. Administrators (91 percent)
3. Paraprofessionals (74 percent)
4. Student Teachers (63 percent)

References and Equipment

According to the data, the administrators considered most of the references and almost all of the suggested equipment as essential.

Personnel

According to the data, the following personnel are considered essential:

1. One administrator (97 percent)
2. One secretary (97 percent)

Physical Facilities

The following facilities are considered essential, according to the data:

1. Workspace for use by staff and teachers engaged in actual instruction (93 percent)
2. Large area for housing of the materials production equipment (87 percent)
3. Workroom with facilities for typing, mimeographing and other types of duplicating (85 percent)
4. Conference room (Approximately 12 people) (58 percent)
5. Reading/browsing area (58 percent)

Hours of Operation

According to the data, the administrators considered the following as essential:

1. The laboratory should be open from 8:00 a.m. to 9:00 p.m.
2. The laboratory should be open on Saturday.

Location and Availability

According to the data, the administrators suggested the following:

1. There should be one laboratory in every region.

2. The laboratory should be open to any teacher in the system, regardless of what region the teacher teaches or resides.

Recommendations

On the basis of the general conclusions drawn from the data of this evaluation, and the evaluator's observations, the following recommendations regarding the curriculum laboratory are made:

1. It is recommended that an additional curriculum laboratory is needed for the east side to serve all Title I schools for that area.

2. It is recommended, in the future, that every region should have a curriculum laboratory, but it should not be restricted solely to the people who teach in that region.

3. It is recommended that the hours of the laboratory should be extended. The following hours are recommended:

   a. The laboratory should be open from 9:45 a.m. to 6:00 p.m., Monday through Friday.

   b. The laboratroy should be open until 9:00 p.m., one day during the week.

   c. The laboratory should be open from 9:00 a.m. to 1:00 p.m. on Saturday.

4. It is recommended that the laboratory serve as a repository of the most recent curriculum materials and research findings.

5. It is recommended that the laboratory provide the following:

   a. One copy of every textbook on the approved textbook list.

   b. A few copies of curriculum guides of every subject area.

   c. Equipment and materials above and beyond what individual schools might not have on hand.

Facilities

It is recommended that the following items should be added to the laboratory:

1. Sink, especially for color lift purposes, and photographic processes

2. Recording booth, to record or transcribe audio-tapes

3. Air condition, during the summer it is almost unberable with the additional heat produced by the equipment

4. Carpeting for most of the laboratory

Staff

1. It is recommended that additional types of personnel are needed in laboratories. In order to have an effective operation, the following personnel are needed:

   a. one administrator
   b. two secretaries
   c. one technician*
   d. one curriculum specialist*
   e. two paraprofessionals

2. It is recommended that the curriculum laboratory administrator should be relieved as much as possible from routine technical duties to play a greater role as an instructional consultant to individual teachers both within the curriculum laboratories and within individual schools or departmental situations.

Services

1. It is recommended that the laboratory should move from being basically a production facility to the direction where the center can create products or processes that provide assistance in developing viable alternatives for improving classroom learning.

2. It is recommended that more effective approaches should be explored to communicate with school administrators to obtain greater teacher use of the curriculum laboratory. Some recommended suggestions are as follows:

   a. Media workshops should be provided for new teachers and paraprofessionals coming into Title I schools.

   b. Presentation should be made to all the administrators of Title I schools about the services and equipment available to them and their teachers.

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*New added positions.

3. A regular newsletter concerning the references, equipment, and services should be established in order to keep the teachers and administrators up to date.

4. It is recommended that a small dial access system should be placed in the curriculum laboratory for the users to use while they are waiting to use the equipment. The system can obtain a variety of interesting topics for the educators.

Materials and Equipment

1. It is recommended that the following equipment should be added to the laboratory:

   a. multi-color photocopier machine
   b. collator
   c. tape duplicator
   d. additional cassette taperecorders (both record and playback)
   e. mimeograph machine (limited use)
   f. spirit duplicator (limited use)

2. It is recommended that almost all equipment should be replaced on a regular five year schedule. It is recommended every five years instead of the normally suggested ten years because of the heavy use. It is also recommended that this equipment should be replaced with the new models available. One-fifth of the total equipment replacement budget should be set aside every year for an ordered sequence of replacement.

3. Provision should be made in the next year's budget to replace previously stolen equipment.